

WHAT IS CLAIMED IS:

1. A method for managing a fleet of vehicles, comprising the steps of:

5 providing a radio transmitter connected to a vehicle navigation system in each vehicle;

providing a radio transmitter connected to a facility computer in a vehicle management facility;

10 receiving information regarding use of a vehicle by the vehicle navigation system from the facility computer which is transmitted through the radio transmitters;

starting usage of the vehicle after receiving the information by the navigation system;

15 monitoring usage of the vehicle and storing data relating to the usage of the vehicle in a memory provided in the vehicle; and

sending the data relating to the usage of the vehicle to the facility computer through the radio transmitters to finalize the usage of the vehicle.

20 2. A method for managing a fleet of vehicles as defined in Claim 1, wherein the step of monitoring the usage of the vehicle comprises the steps of:

determining the distance traveled by the vehicle since the start of the usage; and

determining if an accident has occurred.

25 3. A method for managing a fleet of vehicles as defined in Claim 1 further comprising the steps of:

30 determining the condition of the vehicle when the vehicle is returned to the facility based on the data relating to the usage of the vehicle received by the facility computer and based on visual inspection; and

transmitting the condition of the vehicle to the navigation system through the radio transmitters for confirmation.

35 4. A method for managing a fleet of vehicles as defined in Claim 3, wherein the step of determining the

condition of the vehicle includes the steps of:

determining an amount of fuel in the vehicle;
determining a distance traveled by the vehicle; and
determining whether the vehicle requires service.

5 5. A method for managing a fleet of vehicles as defined in Claim 1, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on Bluetooth standard.

10 6. A method for managing a fleet of vehicles as defined in Claim 1, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on IEEE 802.11b standard.

15 7. A method for managing a fleet of vehicles as defined in Claim 1, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on HomeRF standard.

8. A method for managing a fleet of rental vehicles, comprising the steps of:

20 providing a radio transmitter connected to a vehicle navigation system in each rental vehicle;

 providing a radio transmitter connected to a rental facility computer in a rental vehicle facility;

25 receiving information from a user and establishing a rental term which is stored in the rental facility computer;

 verifying user information when the user arrives at the rental vehicle facility;

30 exchanging data by sending the rental term and user information from the rental facility computer to the vehicle navigation system through the radio transmitters and sending current vehicle condition information including milage and gas level from the vehicle navigation system to the rental facility computer;

35 starting a rental period of the rental vehicle after the step of exchanging the data;

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monitoring usage of the rental vehicle and storing data relating to the usage of the rental vehicle in a memory provided in the vehicle navigation system;

5 sending the data relating to the usage of the rental vehicle to the rental facility computer through the radio transmitters for calculating a rental fee; and

returning the rental vehicle by confirming the data relating to the usage of the rental vehicle and paying the rental fee by the user.

10 9. A method for managing a fleet of rental vehicles as defined in Claim 8, wherein the step of monitoring the usage of the vehicle comprises the steps of:

15 determining the distance traveled by the vehicle since the start of the rental and recording data relating to the distance in the memory in the navigation system; and

determining if an accident has occurred and recording data relating to the accident in the memory in the navigation system.

20 10. A method for managing a fleet of rental vehicles as defined in Claim 9, wherein the step of recording data relating to the accident includes the steps of recording data concerning a location, time, and destination in the memory in the vehicle navigation system.

25 11. A method for managing a fleet of rental vehicles as defined in Claim 9, wherein the step of recording data relating to the accident includes the steps of detecting a signal from an air bag sensor indicating a deployment of air bags in the rental vehicle and recording data concerning a location, time, and destination in the memory in the vehicle navigation system.

30 12. A method for managing a fleet of vehicles as defined in Claim 8 further comprising the steps of:

35 determining the condition of the vehicle when the rental vehicle is returned to the rental facility based

on the data relating to the usage of the vehicle received by the rental facility computer and based on visual inspection; and

transmitting the condition of the vehicle to the navigation system through the radio transmitters for confirmation by the user.

13. A method for managing a fleet of rental vehicles as defined in Claim 11, wherein the step of determining the condition of the vehicle includes the steps of:

determining an amount of fuel consumed in the rental vehicle during the rental period;

determining a distance traveled by the rental vehicle during the rental period; and

determining whether the vehicle requires service as a result of the rental.

14. A method for managing a fleet of vehicles as defined in Claim 8, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on Bluetooth standard.

15. A method for managing a fleet of vehicles as defined in Claim 8, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on IEEE 802.11b standard.

16. A method for managing a fleet of vehicles as defined in Claim 8, wherein the radio transmitter in the vehicle or in the vehicle management facility is a wireless transceiver based on HomeRF standard.

17. A method for managing a fleet of rental vehicles as defined in Claim 8, wherein the rental vehicle is provided with a Bluetooth transceiver using a 2.45GHz frequency band and a Bluetooth enabled telephone.

18. A rental vehicle management system, comprising:
a vehicle radio transmitter connected to a vehicle navigation system in each rental vehicle;
a station radio transmitter connected to a rental

facility computer in a rental vehicle facility;

means for receiving information from a user and establishing a rental term which is stored in the rental facility computer and verifying user information when the user arrives at the rental vehicle facility;

means for exchanging data by sending the rental term and user information from the rental facility computer to the vehicle navigation system through the radio transmitters and sending current vehicle condition information including milage and gas level from the vehicle navigation system to the rental facility computer through the radio transmitters;

wherein the vehicle navigation system monitors usage of the rental vehicle and stores data relating to the usage of the rental vehicle in a memory and sends the stored data to the rental facility computer through the radio transmitters for calculating a rental fee, thereby returning the rental vehicle by confirming the usage of the rental vehicle and paying the rental fee by the user.

19. A rental vehicle management system as defined in Claim 18, wherein the vehicle navigation system determines the distance traveled by the rental vehicle and records data relating to the distance in the memory in the navigation system; and determines if an accident has occurred and records data relating to the accident in the memory in the navigation system.

20. A rental vehicle management system as defined in Claim 19, wherein the data relating to the accident to be stored in the navigation system includes data concerning a location and time of the accident and destination of the rental vehicle before the accident.

21. A rental vehicle management system as defined in Claim 19, wherein the navigation system detects a signal from an air bag sensor indicating a deployment of air bags in the

rental vehicles and records the data concerning a location and time of the accident and destination of the rental vehicle before the accident.

5 22. A rental vehicle management system as defined in Claim 18, wherein the radio transmitter in the rental vehicle or in the rental vehicle facility is a wireless transceiver based on Bluetooth standard.

10 23. A rental vehicle management system as defined in Claim 18, wherein the radio transmitter in the rental vehicle or in the rental vehicle facility is a wireless transceiver based on IEEE 802.11b standard.

15 24. A rental vehicle management system as defined in Claim 18, wherein the radio transmitter in the rental vehicle or in the rental vehicle facility is a wireless transceiver based on Home RF standard.

20 25. A rental vehicle management system as defined in Claim 18, wherein the rental vehicle is provided with a Bluetooth transceiver using a 2.45GHz frequency band and a mobile telephone enabled with Bluetooth protocol.